



UNITED STATES PATENT AND TRADEMARK OFFICE

NW

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,410	09/28/2001	Kanji Kawakami	Q66456	2356

7590 11/05/2003

SUGHRUE MION ZINN MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER

WIMER, MICHAEL C

ART UNIT	PAPER NUMBER
----------	--------------

2821

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/964,410

Applicant(s)

KAWAKAMI ET AL.

Examiner

Michael C. Wimer

Art Unit

2821

MW

-- The MAILING DATE of this communication app ars on the cover sheet with the correspondence address --

Period f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2003 .
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disp sition of Claims

- 4) ☒ Claim(s) 1 and 3-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-13 is/are allowed.
- 6) ☒ Claim(s) 1,3-8 and 14-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____ .

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. In light of Applicant's remarks, newly discovered reference(s) to Davies et al. (5,345,222) are introduced. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,5 and are rejected under 35 U.S.C. 102(b) as being anticipated by Davies et al. (5345222).

Regarding Claims 1 and 5, Davies et al show in Figures 6a and 6b, an antenna comprising: a converger, including a conductor 61 (see col. 3, line 56 to col. 4, line 3 and lines 49-58) which converges a magnetic flux of an EM wave, having a through-hole, into which the magnetic flux is converged, at a center portion of the conductor, and a cut-out 64 extending from a part of the through-hole to an outer periphery of the conductor, and a converter, coil 63, which converts the converged magnetic flux into voltage, all arranged as claimed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3,4,6,7 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davies et al.

Regarding Claim 3, Davies et al show in Figures 7a and 7b, a combination of the embodiment of Figures 6a & 6b, where the function of the first and second components 61 and 62 are combined in a single sheet element 71. In order to avoid resistive loading, the sheet is slit in radial directions to the coil 72. It would have been obvious to the skilled artisan to employ such radial slits in the sheet conductor 61 for this same purpose of reducing resistance against current flowing in the conductor.

Regarding Claim 4, at col. 4, lines 49-54 suggest that the sheet conductor may be a laminated structure. Thus, it would have been obvious to the skilled artisan that the laminated plates define a plurality of sub-plates.

Regarding Claim 6, the coil antenna system is used in the "kHz" range (col. 2, third paragraph), and therefore it would have been obvious that the antennas are smaller than the wavelength used.

Regarding Claims 7 and 14, Fig. 2 of Davies et al show a two turn coil. It would have been obvious to the skilled artisan to employ such a coil arrangement in the

Art Unit: 2821

Fig. 6a,6b embodiment for the purpose of providing the system shown in Fig. 8, where the plurality of coils and shields are encased in the gate 83 (col. 5, lines 36-43). Regarding Claims 15 and 16, a skilled artisan would have found it obvious that the coils and shields used in the Fig. 8 embodiment are connected in series in order to provide the proper phase and gain to sense the tags passing through the gate. No phase delay is useful because it would not provide the proper signal gain within the gate.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davies et al in view of Hadden et al. (5223851).

Regarding Claim 8, Davies et al do not show the converter formed on a semiconductor IC. Hadden et al show and teach contact pads 22,24 of the coil transponder 10,12 mounted upon the IC substrate 30. since the pads are etched on the substrate, it would have been obvious to the skilled artisan to employ the coil shield arrangement of Davies et al on a semiconductor substrate as taught by Hadden et al.

Allowable Subject Matter

7. Claims 9-13 are allowed.

Response to Arguments


8. Applicant's arguments with respect to claims of record have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2821

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Wimer whose telephone number is (703) 305-3555. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K. Wong can be reached on (703) 308-4856. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Michael C. Wimer
Primary Examiner
Art Unit 2821

MCW

20 October 2003